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TRANSMITTAL FORM

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Application Number	09/628,367
Filing Date	July 31, 2000
First Named Inventor	Michael C. Bailey et al.
Art Unit	2195
Examiner Name	Lewis A. Bullock, Jr.
Attorney Docket Number	GB9-2000-0083-US1 (WSM File No. 7036-P282US)

Total Number of Pages in This Submission

ENCLOSURES *(Check all that apply)*

- ☐ Fee Transmittal Form
- ☐ Fee Attached
- ☐ Rspnse to Restriction Requirement
- ☐ After Final
- ☐ Affidavits/declaration(s)
- ☐ Extension of Time Request
- ☐ Express Abandonment Request
- ☐ Information Disclosure Statement
- ☐ Certified Copy of Priority Document(s)
- ☐ Response to Missing Parts/ Incomplete Application
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Remarks

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual name	Winstead Sechrest & Minick P.C. Robert A. Voight, Jr., Reg. No. 47,159
Signature	
Date	March 30, 2006

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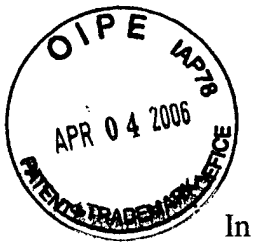
AF

GB9-2000-0083-US1 **PATENT**



BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of: Michael C. Bailey et al.	:	Before the Examiner: Lewis A. Bullock, Jr.
Serial No.: 09/628,367	:	Group Art Unit: 2195
Filed: July 31, 2000	:	
Title: METHOD, PROGRAM PRODUCT AND COMPUTER SYSTEM FOR PROGRESSIVE IMPROVEMENT OF AN ENVIRONMENT POOL	:	IBM Corporation P.O. Box 12195 Dept. T81/503 Research Triangle Park, NC 27709

THIRD APPEAL BRIEF

Mail Stop Appeal Brief-Patents
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I. REAL PARTY IN INTEREST

The real party in interest is International Business Machines, Inc., which is the assignee of the entire right, title and interest in the above-identified patent application.

CERTIFICATION UNDER 37 C.F.R. §1.8

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II. RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences known to Appellants, Appellants' legal representative or assignee which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

III. STATUS OF CLAIMS

Claims 1-18 are pending in the Application. Claims 1-18 stand rejected. Claims 1-18 are appealed.

IV. STATUS OF AMENDMENTS

Appellants have not submitted any amendments following receipt of the final rejection with a mailing date of March 24, 2004.

V. SUMMARY OF CLAIMED SUBJECT MATTER

In one embodiment of the present invention, a method for progressively improving a fit of a pool of reusable environments to requirements of programs in a computer system, the method comprising the step of providing a first environment for a first program. Specification, page 9, lines 4-9. The method may further comprise responsive to initiation of a second program, making a determination whether creation of a new environment is a best response. Specification, page 11, lines 1-17; Figure 2, step 206. The method may further comprise responsive to a determination that creation of a new environment is a best response, creating a new environment for the second program. Specification, page 11, lines 19-23; Figure 2, step 208. The method may further comprise responsive to a determination that creating a new environment is not a best response, testing the pool for a best fit environment. Specification, page 11, lines 23-26; Figure 2, step 210. The method may further comprise adding elements to the best fit environment to match requirements of the second program, unless the best fit environment already matches the requirements of

the second program. Specification, page 11, line 26 – page 12, line 2; Figure 2, step 212.

In another embodiment of the present invention, a computer system for progressively improving a fit of a pool of reusable environments to requirements of programs in a computer system, the computer system comprises means for providing a first environment for a first program. Specification, page 9, lines 4-9; Specification, page 13, line 25 – page 14, line 26; Figure 1, elements 108, 116. The computer system may further comprise means responsive to initiation of a second program, for making a determination whether creation of a new environment is a best response. Specification, page 11, lines 1-17; Specification, page 13, line 25 – page 14, line 26; Figure 2, step 206. The computer system may further comprise means responsive to a determination that creation of a new environment is a best response, for creating a new environment for the second program. Specification, page 11, lines 19-23; Specification, page 13, line 25 – page 14, line 26; Figure 2, step 208. The computer system may further comprise means responsive to a determination that creating a new environment is not a best response, for testing the pool for a best fit environment. Specification, page 11, lines 23-26; Specification, page 13, line 25 – page 14, line 26; Figure 2, step 210. The computer system may further comprise means for adding elements to the best fit environment to match requirements of the second program, unless the best fit environment already matches the requirements of the second program. Specification, page 11, line 26 – page 12, line 2; Specification, page 13, line 25 – page 14, line 26; Figure 2, step 212.

In another embodiment of the present invention, the computer system as recited above, where the means responsive to initiation of a second program, for making a determination whether creation of a new environment is a best response comprises means for testing whether the pool has reached a maximum size. Specification, page 11, lines 1-17; Specification, page 13, line 25 – page 14, line 26.

In another embodiment of the present invention, the computer system as

recited in the paragraph above, where the means, responsive to a determination that the pool has reached its maximum size, for testing the pool for a best fit environment comprises means for performing a programmatically alterable test. Specification, page 11, lines 1-17; Specification, page 13, line 25 – page 14, line 26.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 9 and 10 stand rejected under 35 U.S.C. §101. Claims 1-18 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Curtis et al. (U.S. Patent No. 5,896,531) (hereinafter "Curtis") in view of Yokote (U.S. Patent No. 6,105,074).

VII. ARGUMENT

A. Claims 9 and 10 are not properly rejected under 35 U.S.C. §101.

The Examiner has rejected claims 9 and 10 under 35 U.S.C. §101 because these claims are allegedly directed to non-statutory subject matter. Office Action (1/27/2006), page 2. In particular, the Examiner states:

> The cited claims detail a program product embodied in a signal-bearing medium wherein the medium is transmission medium. Transmission medium includes wireless techniques, including but not limited to microwave infrared or other transmission techniques (pg. 14, lines 1-10). Therefore, the cited claims are non-statutory as not being tangible. Office Action (1/27/2006), pages 2-3.

Appellants respectfully traverse the rejections of claims 9-10 under 35 U.S.C. §101.

The Congressional intent, is that any new and useful process, machine, manufacture or composition of matter under the sun that is made by man is the proper subject matter of a patent. M.P.E.P. §2106. The subject matter courts have found to be outside the four statutory categories is limited to subject matter that is not a practical application or use of an idea, a law of nature or a natural phenomenon. *See, e.g., Rubber-Tip Pencil Co. v. Howard*, 87 U.S. (20 Wall.) 498, 507 (1874); M.P.E.P. §2106. Claims 9-10 are directed to a computer program product, comprising

computer program code tangibly embodied in a signal-bearing medium, for, when loaded into a computer system and executed, progressively improving a fit of a pool of reusable environments to requirements of programs in a computer system.

Appellants respectfully contend that the claimed inventions in claims 9-10 satisfy the test for statutory subject matter recited in *In re Alappat*, and repeated in *State Street Bank & Trust Co. v. Signature Financial Group*, and *AT&T Corp. v. Excel Communications, Inc. In re Alappat*, 33 F.3d 1526, 31 U.S.P.Q.2d 1545 (Fed. Cir. 1994); *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*, 149 F.3d 1368, 47 U.S.P.Q.2d 1596 (Fed. Cir. 1998); *AT&T Corp. v. Excel Communications, Inc.*, 172 F.3d 1526, 50 U.S.P.Q.2d 1547 (Fed. Cir. 1999). The claimed inventions produce a useful, concrete and tangible result in, *inter alia*, eliminating memory corruption.

The essential inquiry under *In re Alappat* is to determine whether the claimed subject matter as a whole is directed to a disembodied mathematical concept representing nothing more than a "law of nature" or an "abstract idea" or if, in contrast, the mathematical concept has been reduced to some practical application rendering it useful. *AT&T Corp.*, 172 F.2d at 1357, 50 U.S.P.Q.2d at 1451 (citing *In re Alappat*, 33 F.3d at 1543, 31 U.S.P.Q.2d at 1556-57). Moreover, in making the determination whether the claimed subject matter as a whole is a disembodied mathematical concept or if the concept has been reduced to some practical application rendering it useful, the claims must be construed in the light of the Specification. *See, AT&T Corp.*, 172 F.3d at 1357, 50 U.S.P.Q.2d at 1451 (stating that more than an abstract idea was claimed in *In re Alappat* because the "claimed invention as whole was directed toward forming a specific machine that produced the useful, concrete and tangible result of a *smooth wave form display*") (emphasis supplied). The single claim at issue in *In re Alappat* was directed to a rasterizer and recited elements in means plus function form. *In re Alappat*, 33 F.3d at 1540, 31 U.S.P.Q.2d at 1555.

Additionally, none of the limitations recited in the claim at issue expressly claimed a "smooth wave form display". Indeed, the concrete, useful and tangible result relied upon in *In re Alappat*, namely, a smooth uniform display, appears in the background of the invention. *Kuriappan P. Alappat, et al.*, U.S. Patent No. 5,440,676 (col. 1, lines 9-10).

Likewise, in *AT&T Corp.*, the useful, nonabstract result relied upon in holding that the claimed invention was directed to statutory subject matter was that the PIC indicator therein held information about the call recipients PIC, which facilitated differential billing of long-distance calls made by a subscriber. *AT&T Corp*, 172 F.3d 1358, 50 U.S.P.Q.2d at 1452. However, the claim at issue in *AT&T Corp.* was directed to a method including the steps of generating a message record for an interexchange call, and including in the message record a PIC indicator having a value which is a function of whether or not the interexchange carrier associated with the terminating subscriber is a predetermined one of the interexchange carriers. *AT&T Corp.*, 172 F.3d at 1354, 50 U.S.P.Q.2d at 1449. Again, there was no express or explicit claim limitation directed to the useful, concrete, and tangible result relied upon in determining that the aforesaid claim was directed to statutory subject matter. *See, Id.* The relied upon PIC indicator that facilitates differential billing of long-distance calls appears, *inter alia*, in the summary of the invention. *Gerard P. Doherty, et al.*, U.S. Patent No. 5,333,184, col. 1, line 66 through col. 2, line 3.

Likewise, in *State Street Bank & Trust v. Signature Financial Group*, a useful and concrete and tangible result not expressed in an explicit limitation in the claim at issue was relied upon in holding that the claim was directed to statutory subject matter. *See, State Street Bank*, 149 F.3d at 1373, 47 U.S.P.Q.2d at 1601 (holding that the transformation of data by the claimed data processing system produced a useful, concrete and tangible result, namely a final share price momentarily fixed for recording and reporting purposes). The claimed invention recited no limitation

directed to either a final share price or means for momentarily fixing the final share price for recording and reporting purposes. *See, State Street Bank*, 149 F.3d at 1371, 47 U.S.P.Q.2d at 1599. Indeed, the relied upon useful, concrete and tangible result in *State Street Bank*, namely a final share price momentarily fixed, is not explicitly recited in the *State Street Bank* patent, but is effectively a distillation of the Summary of the Invention. *See, R. Todd Boes*, U.S. Patent No. 5,193,056, col. 4, lines 36-61. Thus, it is beyond peradventure that when judging the claimed subject matter as a whole to determine patentability under 35 U.S.C. § 101, the claims must be construed in the light of the specification.

In short, the question whether a claim encompasses statutory subject matter focuses on the essential characteristics of the subject matter, in particular its utility. *State Street Bank*, 149 F.3d at 1375, 47 U.S.P.Q.2d at 1602.

As understood by Appellants, the Examiner contends that the claims are directed to non-tangible subject matter. First, Appellants direct the Boards attention to the language in claim 9, which recites in part, "computer program code tangibly embodied in a signal-bearing medium, for, when loaded into a computer system and executed..." Hence, claim 9 is directed in part to code loaded into a computer system. By loading code into a computer system, claim 9, and hence claim 10 which depends from claim 9, are directed to tangible subject matter. Secondly, the Examiner's contention does not address the essential inquiry under 35 U.S.C §101. The essential inquiry is whether there is a practical application, or result. *State Street Bank*, 149 F.3d at 1373, 47 U.S.P.Q.2d at 1601. Claims 9-10 are directed to computer program code for progressively improving a fit of a pool of reusable environments to requirements of programs in a computer system. Hence, the subject matter of claims 9-10 has a practical application within the four statutory categories and is not a practical application or use of an idea, a law of nature or a natural phenomenon.

Thus, for at least the aforesaid reasons, Appellants respectfully contend that claims 9-10 constitute statutory subject matter. Appellants respectfully assert the rejections of claims 9-10 under 35 U.S.C. §101 are in error.

B. Claims 1-18 are not properly rejected under 35 U.S.C. §103(a) as being unpatentable over Curtis in view of Yokote.

The Examiner has rejected claims 1-18 under 35 U.S.C. §103(a) as being unpatentable over Curtis in view of Yokote. Office Action (1/27/2006), page 3. Appellants respectfully traverse for at least the reasons stated below.

1. Curtis and Yokote, taken singly or in combination, do not teach or suggest the following claim limitations.

a. Claims 1 and 11 are patentable over Curtis in view of Yokote.

Appellants respectfully assert that Curtis and Yokote, taken singly or in combination, do not teach or suggest "responsive to initiation of a second program, making a determination whether creation of a new environment is a best response" as recited in claim 1 and similarly in claim 11. The Examiner cites column 5, line 46 – column 6, line 6 of Curtis as teaching the above-cited claim limitation. Office Action (1/27/2006), page 3. Appellants respectfully traverse.

Curtis instead teaches determining whether or not the task can utilize a reusable OME. Column 5, lines 50-52. Curtis further teaches that if the task can utilize a reusable OME, the process then advances to block 404 which illustrates a determination of whether or not a reusable OME is available. Column 5, lines 52-55. Curtis further teaches that if a reusable OME is available, then the process proceeds to determining whether or not the available reusable OME is compatible with the task. Column 5, lines 55-58. Curtis further teaches that compatibility between the task and the reusable OME may be determined by comparing the parameters specifying the reusable OME to the minimal requirements of the task. Column 5, lines 58-63. Hence, Curtis teaches determining if a reusable object management

environment (OME) is available and if so whether the task is compatible with the reusable OME such as by comparing the parameters specifying the reusable OME to the minimal requirements of the task. This is not the same as determining whether the creation of a new environment is a best response. A reusable OME is not a new environment. Therefore, the Examiner has not presented a *prima facie* case of obviousness in rejecting claims 1 and 11, since the Examiner is relying upon an incorrect, factual predicate in support of the rejection. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998).

Appellants further assert that Curtis and Yokote, taken singly or in combination, do not teach or suggest "responsive to a determination that creation of a new environment is a best response, creating a new environment for the second program" as recited in claim 1 and similarly in claim 11. The Examiner cites column 6, lines 30-42 of Curtis as teaching the above-cited claim limitation. Office Action (1/27/2006), page 3. Appellants respectfully traverse and assert that Curtis instead teaches that if a reusable OME is unavailable, the process advances to starting of a reusable OME and the connection of the task to it. Column 6, lines 30-33. Curtis further teaches that if the task cannot utilize a reusable OME, then the process starts a transitory OME and the connection of the task to it. Column 6, lines 38-41. Hence, Curtis teaches that if a task cannot utilize a reusable OME, then a transitory OME is started and the task becomes connected to the transitory OME. Starting a transitory OME is not the same as creating a new environment. Neither is there any language in the cited passage that teaches starting a transitory OME (Appellants understand that the Examiner asserts that starting a transitory OME teaches creating a new environment) in response to determining that starting a transitory OME is the best response in response to initiation of a second program. Therefore, the Examiner has not presented a *prima facie* case of obviousness in rejecting claims 1 and 11, since the Examiner is relying upon an incorrect, factual predicate in support of the rejection. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998).

Appellants further assert that Curtis and Yokote, taken singly or in combination, do not teach or suggest "responsive to a determination that creating a new environment is not a best response, testing the pool for a best fit environment" as recited in claim 1 and similarly in claim 11. The Examiner cites column 7, lines 33-56 of Curtis as teaching the above-cited claim limitation. Office Action (1/27/2006), page 4. Appellants respectfully traverse and assert that Curtis instead teaches determining whether or not the pool of unnamed reusable OMEs is empty. Column 7, lines 39-41. Curtis further teaches that if the pool is not empty, then the process selects the next reusable OME from the list of OMEs. Column 7, lines 41-43. Curtis further teaches if the OME is marked as active, then the process determines whether any more OME remain in the list. Column 7, lines 44-48. Curtis further teaches that if the OME is not marked as active, then the process determines whether or not the task can utilize the reusable OME. Column 7, lines 48-51. Hence, Curtis teaches determining whether the pool of unnamed reusable OMEs is empty and if the pool is not empty, selecting the next reusable OME from the list of OMEs. Curtis further teaches that if the selected OME is marked as active, then the process determines whether the task can utilize the selected OME. While Curtis teaches about determining whether the pool of unnamed OMEs is empty, there is no language in the cited passage that teaches testing the pool for a best fit environment in response to determining that creating a new environment is not a best response. Therefore, the Examiner has not presented a *prima facie* case of obviousness in rejecting claims 1 and 11, since the Examiner is relying upon an incorrect, factual predicate in support of the rejection. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998).

Further, in connection with the rejection of the above-cited claim limitation, the Examiner must provide a basis in fact and/or technical reasoning to support the assertion that determining whether the pool of unnamed OMEs is empty is the same as testing the pool for a best fit environment as defined in the specification[1]. *See Ex*

[1] The specification can be used as a dictionary to learn the meaning of a term in the patent claim. *Toro Co. v. White Consol. Indus., Inc.*, 199 F.3d 1295, 1299, 53 U.S.P.Q.2d 1065, 1067 (Fed. Cir. 1999).

parte Levy, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Inter. 1990). That is, the Examiner must provide extrinsic evidence that must make clear that determining whether the pool of unnamed OMEs is empty, as taught in Curtis, is the same as testing the pool for a best fit environment, and that it be so recognized for persons of ordinary skill. *See In re Robertson*, 169 F.3d 743, 745, 49 U.S.P.Q.2d 1949, 1950-51 (Fed. Cir. 1999). Since the Examiner has not provided such evidence, the Examiner has not presented a *prima facie* case of obviousness in rejecting claims 1 and 11. M.P.E.P. §2143.

Appellants further assert that Curtis and Yokote, taken singly or in combination, do not teach or suggest "adding elements to the best fit environment to match requirements of the second program, unless the best fit environment already matches the requirements of the second program" as recited in claim 1 and similarly in claim 11. The Examiner cites column 1, line 66 – column 2, line 21; column 11, line 39 – column 12, line 30; column 17, lines 63-67; column 18, lines 1-4; and column 18, lines 15-45 of Yokote as teaching the above-cited claim limitation. Office Action (1/27/2006), page 4. Further, the Examiner asserts that the passages in Yokote cited above teach "incrementally sending executing environment objects to the execution environment to be added to the environment and thereby continue executing the downloaded application, i.e., task." Office Action (1/27/2006), page 4.

Appellants respectfully assert that column 1, line 66 – column 2, line 21; column 11, line 39 – column 12, line 30; column 17, lines 63-67; column 18, lines 1-4; and column 18, lines 15-45 of Yokote do not teach incrementally sending executing environment objects to the execution environment to be added to the environment and thereby continue executing the downloaded application, i.e., task, as asserted by the Examiner. Appellants performed a search for the terms "incrementally"; "environment object", "executing environment objects" and "added" in Yokote and were unable to identify these terms or any variations thereof. Upon review of the above-cited passages, Appellants respectfully assert that the cited passages do not

support the Examiner's assertion that Yokote teaches incrementally sending executing environment objects to the execution environment to be added to the environment and thereby continue executing the downloaded application, i.e., task. Therefore, the Examiner has not presented a *prima facie* case of obviousness in rejecting claims 1 and 11, since the Examiner is relying upon an incorrect, factual predicate in support of the rejection. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998).

Further, Appellants respectfully assert that the passages cited by the Examiner in Yokote do not teach the above-cited claim limitation. Instead, Yokote teaches a checker for checking whether or not the client has an execution environment for the application program to be downloaded when the application program is to be downloaded to the client and a downloader for downloading the application program to the client in accordance with checking results of the checker. Column 1, line 66 – column 2, line 5. Yokote further teaches a notifier for giving notification with relation to the execution environment for the application program to be downloaded when the application program is to be downloaded from the server and a downloader for downloading the application program from the server in accordance with the notification results of the notifier. Column 2, lines 6-12. Yokote further teaches that if an object (device driver) is shifted in a meta-object space for managing a device driver, this shifting becomes actually meaningless if a hardware device does not actually exist at the client. Column 11, lines 38-42. There is no language in the cited passages that teaches adding elements to a best fit environment. Neither is there any language in the cited passage that teaches adding elements to a best fit environment to match requirements of the second program. Neither is there any language in the cited passage that teaches adding elements to a best fit environment to match requirements of the second program, unless the best fit environment already matches the requirements of the second program. Therefore, the Examiner has not presented a *prima facie* case of obviousness in rejecting claims 1 and 11, since the Examiner is relying upon an incorrect, factual predicate in support of the rejection. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998).

b. Claims 2-10 and 12-18 are patentable over Curtis in view of Yokote for at least the reasons stated in Section B.1.a.

Claims 2-10 each recite the combinations of features of claim 1 and thus are patentable over Curtis in view of Yokote for at least the reasons that claim 1 is patentable over Curtis in view of Yokote as discussed in Section B.1.a. Claims 12-18 each recite the combinations of features of claim 11 and thus are patentable over Curtis in view of Yokote for at least the reasons that claim 11 is patentable over Curtis in view of Yokote as discussed in Section B.1.a.

c. Claims 5 and 15 are patentable over Curtis in view of Yokote.

Appellants respectfully assert that Curtis and Yokote, taken singly or in combination, do not teach or suggest "wherein at least one least recently used of the first, new and best fit environments is eligible to be deleted" as recited in claim 5 and similarly in claim 15. The Examiner cites column 6, lines 7-27 and column 8, lines 36-49 of Curtis as teaching the above-cited claim limitation. Office Action (1/27/2006), page 5. Appellants respectfully traverse and assert that Curtis instead teaches that a failure in the data processing system that prevents the marking of the OME as being inactive will result in the OME being discarded at a later time in accordance with a preferred embodiment of the present invention. Column 6, lines 18-21. Curtis further teaches the deletion of a reference to an OME. Column 6, lines 26-27. Hence, Curtis teaches the possibility of an OME being discarded as well as the deletion of a reference to an OME. However, there is no language in the cited passages that teaches that at least one least recently used of the first, new and best fit environments is eligible to be deleted. Therefore, the Examiner has not presented a *prima facie* case of obviousness in rejecting claims 5 and 15, since the Examiner is relying upon an incorrect, factual predicate in support of the rejection. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998).

d. Claims 6 and 16 are patentable over Curtis in view of Yokote.

Appellants respectfully assert that Curtis and Yokote, taken singly or in combination, do not teach or suggest "wherein the elements are parameters of at least one of the first, the new and the best fit environments" as recited in claim 6 and similarly in claim 16. The Examiner cites column 1, line 66 – column 2, line 21; column 11, line 39 – column 12, line 30; column 17, lines 63-67; column 18, lines 1-4; and column 18, lines 15-45 of Yokote as teaching the above-cited claim limitation. Office Action (1/27/2006), page 5. Appellants respectfully traverse and assert that Yokote instead teaches that a data processing device of the present invention is provided with a checker for checking whether or not the client has an execution environment for the application program to be downloaded when the application program is to be downloaded to the client and a downloader for downloading the application program to the client in accordance with checking results of the checker. Column 1, line 66 –column 2, line 5. Yokote further teaches that if an object (device driver) is shifted in a meta-object space for managing a device driver, this shifting becomes actually meaningless if a hardware device does not actually exist at the client. Column 11, lines 38-42. There is no language in the cited passages that teaches that the elements added to the best fit environment are parameters. Neither is there any language in the cited passages that teaches that the elements added to the best fit environment are parameters of at least one of the first, the new and the best fit environments. Therefore, the Examiner has not presented a *prima facie* case of obviousness in rejecting claims 6 and 16, since the Examiner is relying upon an incorrect, factual predicate in support of the rejection. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998).

e. Claims 7 and 17 are patentable over Curtis in view of Yokote.

Appellants respectfully assert that Curtis and Yokote, taken singly or in combination, do not teach or suggest "wherein the step of responsive to initiation of a

second program, making a determination whether creation of a new environment is a best response comprises testing whether the pool has reached a maximum size" as recited in claim 7 and similarly in claim 17. The Examiner cites column 7, line 33 – column 8, line 13 of Yokote as teaching the above-cited claim limitation. Office Action (1/27/2006), page 6. Appellants respectfully traverse.

Yokote instead teaches that it is no longer necessary to wait impatiently until the system starts up as is the case for current personal computers because the set top box (STB) can soon be used after turning on the power supply. Column 7, lines 34-37. Yokote further teaches that when the STB is turned on, the STB downloads and starts to execute the objects necessary first. Column 7, lines 40-41. Yokote further teaches that limitations also occur when executing a plurality of application programs at the same time because plenty of calculation resources such as for the server are not prepared at the client. Column 7, lines 49-52. Yokote further teaches that the execution environments (elements 12 and 22) are also assemblies of the objects (elements 15 and 25) and the same operations as for the objects (elements 14 and 24) of the application programs (elements 11 and 21) are possible. Column 8, lines 4-7. Yokote further teaches that a meta-object for controlling the downloading sequence specialized for the application programs (elements 11 and 21) can therefore be prepared as one of the objects (elements 15 and 25). Column 8, lines 7-9. Yokote further teaches that in this way, a download sequence of an object that the above object utilizes can be appointed as being suitable for a specific application and the time a user has to wait can be minimized using incremental downloading. Column 8, lines 11-14.

There is no language in the cited passage that teaches testing whether a pool has reached a maximum size. Neither is there any language in the cited passage that teaches determining whether the creation of a new environment is a best response comprises testing whether the pool has reached a maximum size. Neither is there any language in the cited passage that teaches that the step of responsive to initiation of a

second program, making a determination whether the creation of a new environment is a best response comprises testing whether the pool has reached a maximum size. Therefore, the Examiner has not presented a *prima facie* case of obviousness in rejecting claims 7 and 17, since the Examiner is relying upon an incorrect, factual predicate in support of the rejection. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998).

f. Claims 8 and 18 are patentable over Curtis in view of Yokote.

Appellants respectfully assert that Curtis and Yokote, taken singly or in combination, do not teach or suggest "wherein the step of responsive to a determination that the pool has reached its maximum size, testing the pool for a best fit environment comprises a programmatically alterable test" as recited in claim 8 and similarly in claim 18. The Examiner cites column 7, line 33 – column 8, line 13 of Yokote as teaching the above-cited claim limitation. Office Action (1/27/2006), page 6. Appellants respectfully traverse.

As stated above, Yokote instead teaches that it is no longer necessary to wait impatiently until the system starts up as is the case for current personal computers because the set top box (STB) can soon be used after turning on the power supply. Column 7, lines 34-37. Yokote further teaches that when the STB is turned on, the STB downloads and starts to execute the objects necessary first. Column 7, lines 40-41. Yokote further teaches that limitations also occur when executing a plurality of application programs at the same time because plenty of calculation resources such as for the server are not prepared at the client. Column 7, lines 49-52. Yokote further teaches that the execution environments (elements 12 and 22) are also assemblies of the objects (elements 15 and 25) and the same operations as for the objects (elements 14 and 24) of the application programs (elements 11 and 21) are possible. Column 8, lines 4-7. Yokote further teaches that a meta-object for controlling the downloading sequence specialized for the application programs (elements 11 and 21) can therefore

be prepared as one of the objects (elements 15 and 25). Column 8, lines 7-9. Yokote further teaches that in this way, a download sequence of an object that the above object utilizes can be appointed as being suitable for a specific application and the time a user has to wait can be minimized using incremental downloading. Column 8, lines 11-14.

There is no language in the cited passage that teaches testing the pool for a best fit environment. Neither is there any language in the cited passage that teaches that testing the pool for a best fit environment comprises a programmatically alterable test. Neither is there any language in the cited passage that teaches that the step of responsive to a determination that the pool has reached its maximum size, testing the pool for a best fit environment comprises a programmatically alterable test. Therefore, the Examiner has not presented a *prima facie* case of obviousness in rejecting claims 8 and 18, since the Examiner is relying upon an incorrect, factual predicate in support of the rejection. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998).

2. The Examiner has not provided appropriate motivation for modifying Curtis with Yokote to include the missing claim limitation of claims 1 and 11.

Most if not all inventions arise from a combination of old elements. *See In re Rouffet*, 47 U.S.P.Q.2d 1453, 1457 (Fed. Cir. 1998). Obviousness is determined from the vantage point of a hypothetical person having ordinary skill in the art to which the patent pertains. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1457 (Fed. Cir. 1998). Therefore, an Examiner may often find every element of a claimed invention may often be found in the prior art. *Id.* However, identification in the prior art of each individual part claimed is insufficient to defeat patentability of the whole claimed invention. *See Id.* In order to establish a *prima facie* case of obviousness, the Examiner must show reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited

prior art references for combination in the manner claimed. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1458 (Fed. Cir. 1998). That is, the Examiner must provide some suggestion or motivation, either in the references themselves, the knowledge of one of ordinary skill in the art, or, in some case, the nature of the problem to be solved, to modify the reference or to combine reference teachings. *See In re Dembiczak*, 175 F.3d 994, 999, 50 U.S.P.Q.2d 1614, 1617 (Fed. Cir. 1999). Whether the Examiner relies on an express or an implicit showing, the Examiner must provide particular findings related thereto. *In re Kotzab*, 55 U.S.P.Q.2d 1313, 1317 (Fed. Cir. 2000).

The Examiner admits that Curtis does not teach "adding elements to the best fit environment to match requirements of the second program, unless the best fit environment already matches the requirements of the second program" as recited in claim 1 and similarly in claim 11. Office Action (1/27/2006), page 4. The Examiner modifies Curtis with Yokote to include the above-cited claim limitation "in order to facilitate decrease the time for program development by providing portions for the device driver or application independently from the OS or type of computer (col. 4, lines 15-67; col. 1, lines 46-49)." Office Action (1/27/2006), page 4. The Examiner's motivation is insufficient to establish a *prima facie* case of obviousness in rejecting claims 1-18.

The Examiner's motivation ("in order to facilitate decrease the time for program development by providing portions for the device driver or application independently from the OS or type of computer") does not provide reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would modify Curtis to add elements to the best fit environment to match requirements of the second program, unless the best fit environment already matches the requirements of the second program. Accordingly, the Examiner has not presented a *prima facie* case of obviousness for rejecting claims 1-18. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1458 (Fed. Cir. 1998).

Curtis addresses the problem of reducing the initialization time necessary to provide a data processing environment for a particular task. Column 1, lines 40-42; Column 1, lines 51-54. The Examiner has not provided any reasons as to why one skilled in the art would modify Curtis, which teaches reducing the initialization time necessary to provide a data processing environment for a particular task, to include the aspect of adding elements to the best fit environment to match requirements of the second program, unless the best fit environment already matches the requirements of the second program (Examiner admits that Curtis does not teach this limitation). As previously mentioned, the Examiner's motivation for modifying Curtis to include the above-cited claim limitation is "in order to facilitate decrease the time for program development by providing portions for the device driver or application independently from the OS or type of computer." However, the Examiner has not provided any rationale connection between facilitating the decreasing of the time for program development by providing portions for the device driver or application independently from the OS or type of computer (Examiner's motivation) with the problems addressed by Curtis (reducing the initialization time necessary to provide a data processing environment for a particular task). That is, the Examiner's motivation does not provide reasons as to why one skilled in the art would modify Curtis, that overcomes the problems of having a long initialization time to provide a data processing environment for a particular task, to include the aspect of adding elements to the best fit environment to match requirements of the second program. Accordingly, the Examiner has not presented a *prima facie* case of obviousness for rejecting claims 1-18. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1458 (Fed. Cir. 1998).

3. The Examiner has not provided any motivation for modifying Curtis with Yokote to include the limitation of claims 6 and 16.

The Examiner admits that Curtis does not teach "wherein the elements are parameters of at least one of the first, the new and the best fit environments" as recited in claim 6 and similarly in claim 16. Office Action (1/27/2006), page 5. The Examiner asserts that Yokote teaches the above-cited claim limitation. Office Action

(1/27/2006), page 5. However, the Examiner has not provided any motivation for modifying Curtis with Yokote to include the above-cited claim limitation.

In order to establish a *prima facie* case of obviousness, the Examiner is required to present a suggestion or motivation for modifying Curtis with Yokote to include the missing claim limitations of claims 6 and 16. M.P.E.P. §2143. Since the Examiner has not presented any motivation to modify Curtis with Yokote to include the above-cited limitation, the Examiner has not established a *prima facie* case of obviousness in rejecting claims 6 and 16. M.P.E.P. §2142.

4. The Examiner has not expressly presented a motivation, a source of motivation or objective evidence for modifying Curtis with Yokote to include the limitations of claims 7-8 and 17-18.

As stated above, in order to establish a *prima facie* case of obviousness, the Examiner must show reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1458 (Fed. Cir. 1998). That is, the Examiner must provide some suggestion or motivation, either in the references themselves, the knowledge of one of ordinary skill in the art, or, in some case, the nature of the problem to be solved, to modify the reference or to combine reference teachings. *See In re Dembiczak*, 175 F.3d 994, 999, 50 U.S.P.Q.2d 1614, 1617 (Fed. Cir. 1999). Whether the Examiner relies on an express or an implicit showing, the Examiner must provide particular findings related thereto. *In re Kotzab*, 55 U.S.P.Q.2d 1313, 1317 (Fed. Cir. 2000).

The Examiner admits that Curtis does not teach "wherein the step of responsive to initiation of a second program, making a determination whether creation of a new environment is a best response comprises testing whether the pool has reached a maximum size" as recited in claim 7 and similarly in claim 17. Office

Action (1/27/2006), page 6. The Examiner further admits that Curtis does not teach "wherein the step of responsive to a determination that the pool has reached its maximum size, testing the pool for a best fit environment comprises a programmatically alterable test" as recited in claim 8 and similarly in claim 18. Office Action (1/27/2006), page 6. The Examiner modifies Curtis with Yokote to include the above-cited claim limitations. Office Action (1/27/2006), page 6. The Examiner though has not expressly stated the motivation for modifying Curtis with Yokote. The Examiner simply states:

> It would be obvious to one of ordinary skill in the art that retrieving the list and making the determining whether the OME is available and can execute the task such that if it cannot to [sic] remove the current OME and create one that can obviously tests [sic] the OME. The list is already at its maximum size since if the OME cannot execute the task it is removed and another put back in its place. Office Action (1/27/2006), page 6.

Appellants respectfully assert that the Examiner's above-cited statement does not provide a motivation for modifying Curtis to include the above-cited missing claim limitations. The above-cited claim limitations (claims 7-8 and 17-18) do not recite any of the limitations the Examiner states as being obvious to one of ordinary skill in the art. The Examiner has not provided any rationale connection between the Examiner's statement as to what is obvious to one of ordinary skill in the art and the limitations of claims 7-8 and 17-18. Hence, the Examiner has effectively not provided any motivation for modifying Curtis to include the above-cited missing claim limitations and hence has not established a *prima facie* case of obviousness in rejecting claims 7-8 and 17-18. M.P.E.P. §2143.

Further, the Examiner has not provided a source for his motivation (if the Examiner asserts that the above-cited statement by the Examiner includes a motivation) for modifying Curtis with Yokote to include the above-cited claim limitations. The motivation to modify Curtis must come from one of three possible sources: the nature of the problem to be solved, the teachings of the prior art, and the

knowledge of persons of ordinary skill in the art. *In re Rouffet*, 149 F.3d 1350, 1357, 47 U.S.P.Q.2d 1453, 1457-48 (Fed. Cir. 1998). The Examiner has not provided any evidence that his motivation comes from any of these sources. Instead, the Examiner is relying upon his own subjective opinion which is insufficient to support a *prima facie* case of obviousness. *In re Lee*, 61 U.S.P.Q.2d 1430, 1434 (Fed. Cir. 2002). Consequently, the Examiner's motivation is insufficient to support a *prima facie* case of obviousness for rejecting claims 7-8 and 17-18. *Id.*

Furthermore, the Examiner has not provided reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would modify Curtis to include the limitations of claims 7-8 and 17-28 (test whether the pool has reached a maximum size or to perform a programmatically alterable test). Accordingly, the Examiner has not presented a *prima facie* case of obviousness for rejecting claims 7-8 and 17-18. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1458 (Fed. Cir. 1998).

VIII. CONCLUSION

For the reasons noted above, the rejections of claims 1-18 are in error. Appellants respectfully request reversal of the rejections and allowance of claims 1-18.

Respectfully submitted,
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CLAIMS APPENDIX

1. A method for progressively improving a fit of a pool of reusable environments to requirements of programs in a computer system, the method comprising steps of:

providing a first environment for a first program;

responsive to initiation of a second program, making a determination whether creation of a new environment is a best response;

responsive to a determination that creation of a new environment is a best response, creating a new environment for the second program;

responsive to a determination that creating a new environment is not a best response, testing the pool for a best fit environment; and

adding elements to the best fit environment to match requirements of the second program, unless the best fit environment already matches the requirements of the second program.

2. The method of claim 1, wherein at least one of the first, new and best fit environments is an execution environment.

3. The method of claim 2, wherein the execution environment is preinitialized.

4. The method of claim 1, wherein at least one of the first, new and best fit environments is eligible to be deleted.

5. The method of claim 4, wherein at least one least recently used of the first, new and best fit environments is eligible to be deleted.

6. The method of claim 1, wherein the elements are parameters of at least one of the first, the new and the best fit environments.

7. The method of claim 1, wherein the step of responsive to initiation of a second

program, making a determination whether creation of a new environment is a best response comprises testing whether the pool has reached a maximum size.

8. The method of claim 7, wherein the step of responsive to a determination that the pool has reached its maximum size, testing the pool for a best fit environment comprises a programmatically alterable test.

9. A computer program product, comprising computer program code tangibly embodied in a signal-bearing medium, for, when loaded into a computer system and executed, progressively improving a fit of a pool of reusable environments to requirements of programs in a computer system, by causing the computer system to perform the steps of a method as claimed in claim 1.

10. A computer program product as claimed in claim 9, wherein the signal bearing medium is at least one of a transmissive medium and a storage medium.

11. A computer system for progressively improving a fit of a pool of reusable environments to requirements of programs in a computer system, the computer system comprising:

means for providing a first environment for a first program;

means responsive to initiation of a second program, for making a determination whether creation of a new environment is a best response;

means responsive to a determination that creation of a new environment is a best response, for creating a new environment for the second program;

means responsive to a determination that creating a new environment is not a best response, for testing the pool for a best fit environment; and

means for adding elements to the best fit environment to match requirements of the second program, unless the best fit environment already matches the requirements of the second program.

12. The computer system of claim 11, wherein at least one of the first, new and best fit environments is an execution environment.

13. The computer system of claim 12, wherein the execution environment is preinitialized.

14. The computer system of claim 11, wherein at least one of the first, new and best fit environments is eligible to be deleted.

15. The computer system of claim 14, wherein at least one least recently used of the first, new and best fit environments is eligible to be deleted.

16. The computer system of claim 11, wherein the elements are parameters of at least one of the first, the new and the best fit environments.

17. The computer system of claim 11, wherein the means responsive to initiation of a second program, for making a determination whether creation of a new environment is a best response comprises means for testing whether the pool has reached a maximum size.

18. The computer system of claim 17, wherein the means, responsive to a determination that the pool has reached its maximum size, for testing the pool for a best fit environment comprises means for performing a programmatically alterable test.

EVIDENCE APPENDIX

No evidence was submitted pursuant to §§1.130, 1.131, or 1.132 of 37 C.F.R. or of any other evidence entered by the Examiner and relied upon by Appellants in the Appeal.

RELATED PROCEEDINGS APPENDIX

There are no related proceedings to the current proceeding.